

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently amended): A bone screw, comprising:

a head;

a shank having a proximal portion with a constant minor diameter, and a distal portion with a minor diameter that decreases in a proximal-to-distal direction; and

opposed first and second helical threads, the threads extending around at least a portion of a length the proximal and distal portions of the shank and defining a thread depth that remains constant along the length of the shank.

Claim 2 (Original): The bone screw of claim 1, wherein a major diameter of the shank at a distal tip of the shank is equal to or less than the minor diameter of the proximal portion of the shank.

Claim 3 (Original): The bone screw of claim 1, wherein the distal portion of the shank has a length that is about 10 mm.

Claim 4 (Original): The bone screw of claim 1, wherein the distal portion of the shank has a length that comprises at least about 10% of a length of the bone screw.

Claim 5 (Original): The bone screw of claim 1, wherein the bone screw has a length in the range of about 20 mm to 100 mm, and the distal portion of the shank has a length of about 10 mm.

Claim 6 (Original): The bone screw of claim 1, wherein a root of each of the opposed first and second helical threads has a width extending between proximal and distal facing flanks that remains substantially constant along the length of the shank.

Claim 7 (Original): The bone screw of claim 1, wherein a crest of each of the

opposed first and second helical threads has a width extending between proximal and distal facing flanks that remains substantially constant along the length of the shank.

Claim 8 (Original): The bone screw of claim 7, wherein the width of the crest is about 0.2 mm.

Claim 9 (Original): The bone screw of claim 1, wherein the opposed first and second helical threads define a pitch of about 6 mm.

Claim 10 (Original): The bone screw of claim 1, wherein the opposed first and second helical threads each have proximal and distal flanks that converge toward one another from a root to a crest thereof.

Claim 11 (Original): The bone screw of claim 10, wherein the proximal and distal flanks converge toward one another at substantially the same rate.

Claim 12 (Original): The bone screw of claim 1, wherein the opposed first and second helical threads each have proximal and distal flanks that converge toward one another at an outer-most crest thereof to form a flat edge.

Claim 13 (Original): The bone screw of claim 1, wherein the minor diameter at the proximal portion of the shank is in the range of about 3 mm to 5 mm, and wherein the minor diameter at the distal portion of the shank is less than the minor diameter at the proximal portion of the shank.

Claim 14 (Original): The bone screw of claim 1, further comprising a distal tip formed on a distal-most end of the shank.

Claim 15 (Original): The bone screw of claim 14, wherein the distal tip is a self-tapping tip.

Claim 16 (Original): A bone screw, comprising:
a head having a driver-receiving element formed thereon;

a shank formed from first and second axially symmetrical threads offset approximately 180° from one another and extending around at least a portion of the shank between proximal and distal ends thereof, the threads having a depth that remains constant along a length of the shank, and a proximal portion of the shank having a minor diameter that is equal to or greater than a major diameter of the shank at a distal-most end thereof.

Claim 17 (Original): The bone screw of claim 16, wherein a proximal portion of the shank has a substantially constant minor diameter, and a distal portion of the shank has a minor diameter that decreases in a proximal-to-distal direction.

Claim 18 (Original): The bone screw of claim 16, wherein the distal portion of the shank has a length that is at least about 10% of a length of the bone screw.

Claim 19 (Original): The bone screw of claim 16, wherein the distal portion of the shank has a length that is about 10 mm.

Claim 20 (Original): The bone screw of claim 16, wherein the bone screw has a length in the range of about 20 mm to 100 mm, and the distal portion of the shank has a length of about 10 mm.

Claim 21 (Original): The bone screw of claim 16, wherein a root of the threads has a width extending between proximal and distal facing flanks that remains substantially constant along the length of the shank.

Claim 22 (Original): The bone screw of claim 16, wherein a crest of each the threads has a width extending between proximal and distal facing flanks that remains substantially constant along the length of the shank.

Claim 23 (Original): The bone screw of claim 22, wherein the width of the crest is about 0.2 mm.

Claim 24 (Original): The bone screw of claim 16, wherein the threads define a pitch of about 6 mm.

Claim 25 (Original): The bone screw of claim 16, wherein the threads each have proximal and distal flanks that converge toward one another from a root to a crest thereof.

Claim 26 (Original): The bone screw of claim 25, wherein the proximal and distal flanks converge toward one at substantially the same rate.

Claim 27 (Original): The bone screw of claim 16, wherein the threads each have proximal and distal flanks that converge toward one another at an outermost crest thereof to form a flat edge.

Claim 28 (Original): The bone screw of claim 16, further comprising a distal tip formed on a distal-most end of the shank.

Claim 29 (Original): The bone screw of claim 28, wherein the distal tip is a self-tapping tip.

Claim 30 (Currently Amended): A bone screw, comprising:
a head;
a shank having a proximal portion with a constant minor diameter, and a distal portion with a minor diameter that decreases in a proximal-to-distal direction; and
opposed first and second helical threads formed on at least a the distal portion of the shank and defining a major diameter that decreases at the same rate as the minor diameter of the shank.